

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
(Atty Docket No. 104385.140)

In Re:

Application of: Bennett et al.

Group Art Unit: 1644

Serial Number: 08/722,659

Examiner: Lubet, M.

Filed: September 27, 1996

For: USE OF HEPARINASE TO DECREASE INFLAMMATORY RESPONSES

DECLARATION PURSUANT TO 37 C.F.R. §1.131

#11  
3008  
11-24-98

We, D. Clark Bennett, Elizabeth Cauchon, Ariane Hsia, Pamela Danagher, Brigitte Grouix and Joseph Zimmermann, hereby declare as follows:

1. We are the co-inventors of the above-referenced patent application, which claims priority to provisional application 60/004,622, filed September 29, 1995.
2. We understand that this Declaration is being made to establish a date of invention prior to the date of publication for the following publications which have been cited against the above-referenced patent application by the Examiner:
3. Each of the listed publications was published less than one year prior to the priority date of the instant application.
  - a. Gilat et al., (1995) J. Exp. Med., vol. 181, pp. 1929-1934, published May 1995.
  - b. Gilat et al., (1994) J. Immunol. vol. 153, pp 4899-4906, published December 31, 1994
  - c. Hoogewerf et al., (1995) J. Biol. Chem., vol. 270, pp. 3268-3277, published February 17, 1995.
  - d. Lider et al., (1995) Proc. Natl. Acad. Sci. USA, vol. 92, pp. 5037-5041, published May 1995.

Serial Number: 08/722,659

Group Art Unit: 1816

Examiner: M. Lubet

Page 2

4. The invention was conceived and reduced to practice in a NAFTA country, Canada, and is entitled to the provisions 35 USC § 104.

5. Prior to the publication dates of the articles recited in paragraph 2 above, we conceived of and reduced to practice the invention which is most broadly claimed in Claim 1 of the above-referenced patent application.

6. Attached hereto as EXHIBIT A, Pages 14 and 15, are true copies of laboratory notebook pages from a bound laboratory notebook, signed by Elizabeth Cauchon and witnessed by Pamela Danagher, except that the dates on the pages have been removed. The redacted dates are all prior to each of the publication dates listed in paragraph 2 above.

7. Notebook Pages 14 and 15 are a record of the reduction to practice of the invention in an *in vitro* neutrophil transmigration assay system. This assay system is an accepted *in vitro* model of neutrophil extravasation and is used to analyze conditions affecting neutrophil extravasation, a key step in local inflammatory response. The results presented in Notebook Pages 14 and 15 demonstrated that heparinase treatment of HUVECs (human umbilical venous endothelial cells) inhibits neutrophil transmigration. The demonstrated inhibition of *in vitro* neutrophil transmigration reasonably infers that a localized inflammatory response in tissue can be decreased by administration of heparinase enzyme to a patient. The results of several neutrophil transmigration assays were presented in the provisional application on pages 26-29 (Example 4).

9. We hereby further declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true and further that these statements were made with the knowledge

Serial Number: 08/722,659  
Group Art Unit: 1816  
Examiner: M. Lubet  
Page 3

that willful false statements and the like so made are punishable by fine or imprisonment or both under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Signed: \_\_\_\_\_  
D. Clark Bennett

Dated: \_\_\_\_\_

Signed: \_\_\_\_\_  
Elizabeth Cauchon

Dated: \_\_\_\_\_

Signed: \_\_\_\_\_  
Ariane Hsia

Dated: Nov. 8, 1998

Signed: \_\_\_\_\_  
Pamela Danagher

Dated: \_\_\_\_\_

Signed: \_\_\_\_\_  
Brigitte Grouix

Dated: \_\_\_\_\_

Signed: \_\_\_\_\_  
Joseph Zimmermann

Dated: \_\_\_\_\_

Serial Number: 08/722,659  
Group Art Unit: 1816  
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Page 3

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Signed: \_\_\_\_\_  
D. Clark Bennett

Dated: \_\_\_\_\_

Signed: Elizabeth Cauchon  
Elizabeth Cauchon

Dated: November 2, 1998

Signed: \_\_\_\_\_  
Ariane Hsia

Dated: \_\_\_\_\_

Signed: \_\_\_\_\_  
Pamela Danagher

Dated: \_\_\_\_\_

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Brigitte Grouix

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Joseph Zimmermann

Dated: \_\_\_\_\_

Serial Number: 08/722,659  
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Examiner: M. Lubet  
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Ariane Hsia

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Pamela Danagher

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Brigitte Grouix

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Signed: \_\_\_\_\_  
Joseph Zimmermann

Dated: Nov 5, 1998

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Group Art Unit: 1816  
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Ariane Hsia

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Pamela Danagher

Dated: \_\_\_\_\_

Signed: \_\_\_\_\_  
Brigitte Grouix

Dated: 4-11-98

Signed: \_\_\_\_\_  
Joseph Zimmermann

Dated: \_\_\_\_\_

Serial Number: 08/722,659

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Examiner: M. Lubet

Page 3

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Elizabeth Cauchon

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Ariane Hsia

Dated: \_\_\_\_\_

Signed: \_\_\_\_\_

  
Pamela Danagher

Dated: \_\_\_\_\_

November 12, 1998

Signed: \_\_\_\_\_

Brigitte Grouix

Dated: \_\_\_\_\_

Signed: \_\_\_\_\_

Joseph Zimmermann

Dated: \_\_\_\_\_